Panasonic

50-inch High Definition Plasma Display

TH-50PH30ER

Product specification (design and specification subject to change without notice)

■DISPLAY

Screen Size (Diagonal)	50-inch (1,268 mm)
Aspect ratio	16:9
Effective Display Area (W x H)	1,105 x 622 mm
Number of pixels (H x V)	1,024 x 768 pixels (1 pixel=3cells for R, G and B)
Pixel Pitch (H x V)	1.080 x 0.810 mm
Contrast Ratio	2,000,000 : 1
Gradation	5,120 steps (equivalent)
Panel Life*1	approx. 100,000 hours

*1: Guideline operating hours before the panel brightness is reduced to half when the panel is used to display motion pictures in the Standard mode. Afterimages (burned-in images) and malfunctions are not taken into consideration.

■CONNECTION TERMINAL

VIDEO IN	BNC x 1	1.0 V[p-p] (75 Ω)
AUDIO IN (L/R)	RCA pin jack x 1 set	0.5 V [rms]
COMPONENT/RGB IN	BNC x 3	Y/G : with sync 1.0 V [p-p] (75 Ω) $B/P_B/C_B$, $R/P_R/C_R$: 0.7 V [p-p] (75 Ω)
AUDIO IN (L/R)	RCA pin jack x 1 set	0.5 V [rms]
HDMI IN	HDMI TYPE A connector x 1	
DVI-D IN	DVI-D 24pin x 1	Compliance with DVI Revision 1.0 Compatible with HDCP 1.1
AUDIO IN	M3 jack x 1	0.5 V [rms]
PC IN	MINI D-SUB 15pin x1(Female) Plug & Play (VESA DDC 2B)	Y/G : with sync 1.0 V [p-p] (75 Ω) without sync 0.7 V [p-p] (75 Ω) $B/P_B/C_B$, $R/P_R/C_R$: 0.7 V [p-p] (75 Ω) HD/VD : 1.0~5.0 V [p-p] (high impedance)
AUDIO IN	M3 jack x 1	0.5 V [rms]

■CONTROL TERMINAL

SERIAL	D-SUB 9pin x 1 (EXTERNAL CONTROL TERMINAL), RS-232C COMPATIBLE

■ELECTRICAL

Power Requirements	220 - 240 V AC, 50 Hz/60 Hz
Power Consumption	230W
On Mode Average Power Consumption*2	195W
Power off condition	0.3W
Stand-by condition	0.5W

*2: Based on IEC 62087 Ed.2 measurement method.

■SOUND

Audio Output	6Ω,16 W [8 W + 8 W] (10 % THD)

■MECHANICAL

Dimensions (W x H x D)	1,210 x 724 x 89 mm
Carton Dimensions (W x H x D)	1,385 x 836 x 284 mm
Weight	approx. 31.0 kg
Gross weight	approx. 39.0 kg
Cabinet Color	Black

■ENVIRONMENTAL

Operating environment	Temperature:	0 ℃ to 40 ℃
	Humidity :	20 % to 80 % (Non condensation)
	Altitude :	0 to 2,800 m
Storage environment	Temperature:	-20 ℃ to 60 ℃
	Humidity :	20 % to 90 % (Non condensation)
	Altitude :	0 to 3,300 m

■STANDARD (CERTIFICATIONS)

SAFETY REGULATIONS	EN60065, IEC60065, GOST
RADIATION REGULATIONS	EN55022 Class-B, EN55024, EN61000-3-2, EN61000-3-3

■REMOTE CONTROL TRANSMITTER

Power Requirements	DC 3 V (2 x R6 Size batteries)
Operation distance	approx. 7 m in front of plasma display
Weight	approx. 100 g including batteries

INCLUDED ACCESSORIES	- AC power cord - Operating instruction book - CD-ROM (Operating instructions) - Remote control transmitter - Batteries

© Panasonic Corporation 2011

MAIN FEATURE

Digital Zoom	Yes
Video Wall	Yes (N x M, up to 5 x 5)
Power-On Delay	Yes
Display size setting	Yes
Auto Set Up	Yes
HDMI Range	Yes
Screen Saver	Negative image, Scrolling bar only, White screen, Overlay scrolling bar
NANO DRIFT Saver	Yes (LOW/MID/HIGH)
Side Bar Adjust	Yes
Peak Limit	Yes
Power Save	Yes
Power Management (PC/DVI)	Yes
No Activity Power Off	Yes
Initial INPUT	Yes
Initial VOL level	Yes
INPUT/Button Lock	Yes
Remote-control User Level	Yes
Maximum VOL level	Yes

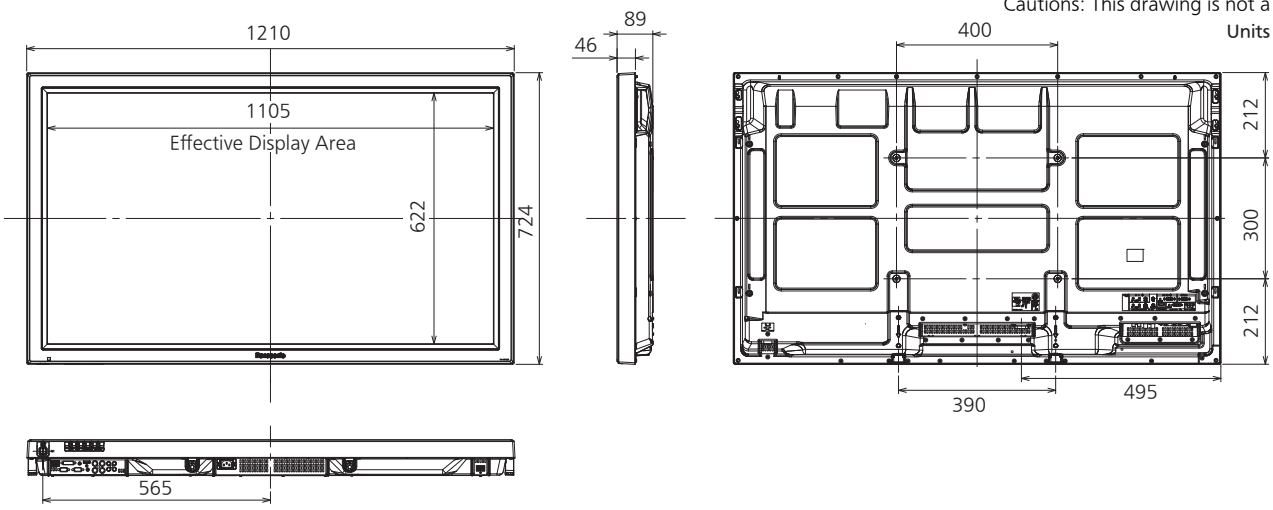
OPTIONAL ACCESSORIES

Pedestal	TY-ST20-K
Mobile stand	TY-ST58PF20
Wall-hanging bracket	TY-WK42PV20
Wall-hanging bracket (angled)	TY-WK42PR20
Ceiling-hanging bracket	TY-CE42PS20
Speakers	TY-SP50P8W-K
Touch Panel	TY-TP50P10S

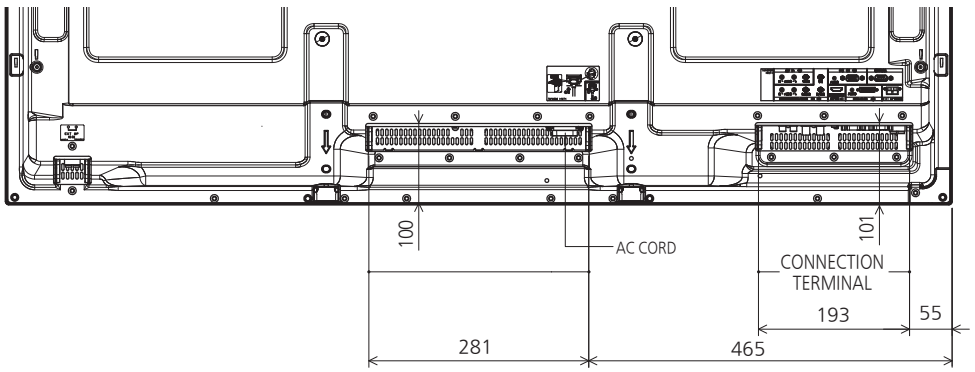
DIMENSIONS

Cautions: This drawing is not a scale

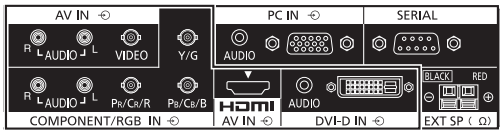
Units : mm



TERMINAL DIMENSIONS



CONNECTION TERMINAL



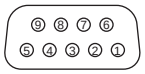
© Panasonic Corporation 2011

Preset Input Signals

	Signal name	horizontal frequency (kHz)	vertical frequency (Hz)	Component Video	Composite Video	HDMI	DVI-D	PC IN (D-sub 15-pin)
Composite	NTSC	15.73	59.94		Y			
	PAL	15.63	50.00		Y			
	PAL60	15.73	59.94		Y			
	SECAM	15.63	50.00		Y			
	Modified NTSC	15.73	59.94		Y			
Component/RGB	525(480)/60i	15.73	59.94	Y		Y	Y	Y
	525(480)/60p	31.47	59.94	Y		Y	Y	Y*1
	625(575)/50i	15.63	50.00	Y				Y
	625(576)/50i	15.63	50.00			Y	Y	
	625(575)/50p	31.25	50.00	Y				Y
	625(576)/50p	31.25	50.00			Y	Y	
	750(720)/60p	45.00	60.00	Y		Y	Y	Y
	750(720)/50p	37.50	50.00	Y		Y	Y	Y
	1125(1080)/60i	33.75	60.00	Y*2		Y	Y	Y*2
	1125(1080)/60p	67.50	60.00	Y*2		Y	Y	Y*2
	1125(1080)/50i	28.13	50.00	Y*2		Y	Y	Y*2
	1125(1080)/50p	56.25	50.00	Y*2		Y	Y	Y*2
	1125(1080)/30p	33.75	30.00	Y*2			Y	Y*2
	1125(1080)/25p	28.13	25.00	Y*2			Y	Y*2
	1125(1080)/24p	27.00	24.00	Y*2		Y	Y	Y*2
	1125(1080)/24sF	27.00	48.00	Y*3				Y*3
RGB	640×400@70Hz	31.46	70.07	Y				Y
	640×480@60Hz	31.47	59.94	Y*5		Y	Y	Y
	640×480@72Hz	37.86	72.81	Y				Y
	640×480@75Hz	37.50	75.00	Y				Y
	640×480@85Hz	43.27	85.01	Y				Y
	800×600@56Hz	35.16	56.25	Y				Y
	800×600@60Hz	37.88	60.32	Y		Y	Y	Y
	800×600@72Hz	48.08	72.19	Y				Y
	800×600@75Hz	46.88	75.00	Y				Y
	800×600@85Hz	53.67	85.06	Y				Y
	852×480@60Hz	31.47	59.94	Y*5		Y	Y	Y
	1024×768@50Hz	39.55	50.00			Y	Y	
	1024×768@60Hz	48.36	60.00	Y		Y	Y	Y
	1024×768@70Hz	56.48	70.07	Y				Y
	1024×768@75Hz	60.02	75.03	Y				Y
	1024×768@85Hz	68.68	85.00	Y				Y
	1066×600@60Hz	37.64	59.94	Y		Y	Y	Y
	1152×864@60Hz	53.70	60.00			Y	Y	
	1152×864@75Hz	67.50	75.00	Y				Y
	1280×768@60Hz	47.70	60.00	Y				Y
	1280×960@60Hz	60.00	60.00	Y				Y
	1280×960@85Hz	85.94	85.00	Y				Y
	1280×1024@60Hz	63.98	60.02	Y		Y	Y	Y
	1280×1024@75Hz	79.98	75.03	Y				Y
	1280×1024@85Hz	91.15	85.02	Y				Y
	1366×768@50Hz	39.55	50.00			Y	Y	
	1366×768@60Hz	48.36	60.00	Y		Y	Y	Y
	1400×1050@60Hz	65.22	60.00			Y	Y	
	1600×1200@60Hz	75.00	60.00	Y		Y	Y	Y
	1600×1200@65Hz	81.25	65.00	Y				Y
	1920×1080@60Hz	67.50	60.00	Y*6		Y*6	Y*6	Y*6
	1920×1200@60Hz	74.04	59.95			Y	Y	
	Mac13" (640×480)	35.00	66.67	Y				Y
	Mac16" (832×624)	49.72	74.54	Y				Y
	Mac21" (1152×870)	68.68	75.06	Y				Y

Pin assignments and signal names

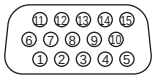
Serial RS232C : D-sub 9-Pin (Male)



No.	Details
1	NC
2	RXD
3	TDX
4	Not used
5	GND
6	Not used
7	Shorted in this set
8	
9	NC

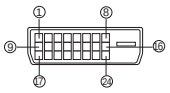
*These signal names are those of computer specifications.

PC Input : D-Sub 15-Pin (Female)



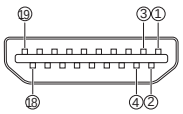
No.	Signal name
1	R (P_R/C_R)
2	G (Y)
3	B (P_B/C_B)
4	NC (Not connected)
5	GND (Ground)
6	GND (Ground)
7	GND (Ground)
8	GND (Ground)
9	+5V DC
10	GND (Ground)
11	NC (Not connected)
12	SDA
13	HD/SYNC
14	VD
15	SCL

DVI-D Input Terminal



No.	Signal name	No.	Signal name
1	T.M.D.S. data 2-	13	———
2	T.M.D.S. data 2+	14	+5 V DC
3	T.M.D.S. data 2 shield	15	Ground
4	———	16	Hot plug detect
5	———	17	T.M.D.S. data 0-
6	DDC clock	18	T.M.D.S. data 0+
7	DDC data	19	T.M.D.S. data 0 shield
8	———	20	———
9	T.M.D.S. data 1-	21	———
10	T.M.D.S. data 1+	22	T.M.D.S. clock shield
11	T.M.D.S. data 1 shield	23	T.M.D.S. clock+
12	———	24	T.M.D.S. clock-

HDMI Terminal



No.	Signal	No.	Signal
1	T.M.D.S. data 2+	11	T.M.D.S. clock shield
2	T.M.D.S. data 2 shield	12	T.M.D.S. clock-
3	T.M.D.S. data 2-	13	CEC
4	T.M.D.S. data 1+	14	Reserved (N.C. on device)
5	T.M.D.S. data 1 shield		
6	T.M.D.S. data 1-	15	SCL
7	T.M.D.S. data 0+	16	SDA
8	T.M.D.S. data 0 shield	17	DDC/CEC Ground
9	T.M.D.S. data 0-	18	+5 V Power
10	T.M.D.S. clock+	19	Hot Plug Detect

*1:When selected the RGB format and 525p signal input, it is recognized as VGA 60Hz signal. *2:Based on SMPTE 274M standard. *3:Based on SMPTE RP211 standard. *4:Based on SMPTE 295M standard. *5:When inputted VGA 60 Hz format signal, it is recognized as 525p signal. *6:Recognized as 1,125(1,080)/60p signal.
Note:Signals without above specification may not be displayed properly.

© Panasonic Corporation 2011